

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 2002-024674

(43)Date of publication of application : 25.01.2002

---

(51)Int.Cl. G06F 17/60

G06F 17/30

---

(21)Application number : 2000-201505 (71)Applicant : NTT ME CORP

(22)Date of filing : 03.07.2000 (72)Inventor : IWATA MASAHIKO

AOYAMA REIKO

---

(54) DISPLAY INFORMATION DISTRIBUTING DEVICE AND METHOD THEREFOR, ADAPTIVE INFORMATION DISTRIBUTING DEVICE AND METHOD THEREFOR, AND PUBLISHING CHARGE CALCULATING DEVICE FOR DISPLAY INFORMATION DISTRIBUTING DEVICE

(57)Abstract:

PROBLEM TO BE SOLVED: To provide a display information distributing device suitable for a individual control of the contents displayed in each information display space.

SOLUTION: This display information distributing device is provided with a space attribute information data base means 32 for registering attribute information in each information display space 200, an information display space extraction means 34 for retrieving the inside of the space attribute information data base means 32 according to a retrieving condition and extracting the information display space 20 matching with the retrieving condition, a contents data base means 36 for receiving supply of contents displayed in the information display space extracted from the publishing client and a schedule control means 38 for displaying the contents in the information display space 20 extracted at a

prescribed time.

-----  
LEGAL STATUS [Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

\* NOTICES \*

JPO and INPIT are not responsible for any

damages caused by the use of this translation.

1.This document has been translated by computer. So the translation may not reflect the original precisely.

2.\*\*\*\* shows the word which can not be translated.

3.In the drawings, any words are not translated.

---

## CLAIMS

---

[Claim(s)]

[Claim 1] A tooth-space attribute information database means to register the attribute information on each information-display tooth space, The inside of this tooth-space attribute information database means is searched according to retrieval conditions. A means to extract the information-display tooth space corresponding to these retrieval conditions, and a means to receive supply of the contents displayed on the this extracted information-display tooth space from this printing request Lord, Display information distribution equipment characterized by providing the schedule management tool which displays these contents on said each information-display tooth space from which it was this extracted at the predetermined stage.

[Claim 2] Display information distribution equipment characterized by having a means except the contents which correspond to contravention of a public policy among said contents further in display information distribution equipment

according to claim 1.

[Claim 3] Display information distribution equipment characterized by having further a means to receive the time of day when said contents were displayed on the information-display tooth space, and a means to charge said printing request Lord based on the display track record of said contents, in display information distribution equipment according to claim 1.

[Claim 4] Display information distribution equipment characterized by giving priority over the display schedule of the contents of the information-display tooth space which said schedule management tool appoints further in display information distribution equipment according to claim 1, and having a means to distribute the contents for interruption.

[Claim 5] It is display information distribution equipment characterized by having a means to distribute time amount nonappointed contents in this empty time zone when there is an empty time zone in display information distribution equipment according to claim 1 to the display schedule of the contents of the information-display tooth space which said schedule management tool appoints further.

[Claim 6] Supply of the contents displayed on the this extracted information-display tooth space is received from this printing request Lord. The inside of a tooth-space attribute information database means by which the

attribute information on each information-display tooth space was registered is searched according to the retrieval conditions which the printing request Lord requests. The display information distribution approach characterized by including making it display on the information-display tooth space from which the information-display tooth space corresponding to these retrieval conditions was extracted, and these contents were this extracted at the predetermined stage.

[Claim 7] A situation acquisition means to sense the attribute situation of the viewer who views and listens to an information-display tooth space, A means to analyze a viewer's attribute situation which this situation acquisition means has sensed, and a means to receive supply of the contents displayed on an information-display tooth space according to this viewer's attribute situation from this printing request Lord, Ecad information distribution equipment characterized by providing the contents selection transmitting means displayed on the information-display tooth space which took matching with this viewer's attribute situation analyzed by the conditions and this attribute circumstantial analysis means which the printing request Lord requests, and was able to take matching of these contents.

[Claim 8] It is ecad information distribution equipment according to claim 7 characterized by for said situation acquisition means being image pick-up equipment, and this attribute circumstantial analysis means analyzing the

attribute expected from a viewer's appearance.

[Claim 9] It is ead information distribution equipment according to claim 7 characterized by analyzing the attribute situation that receive and a viewer likes at least one side of the ID or personal attribute information that ID sending set which the viewer who views and listens to said information-display tooth space possesses sends said situation acquisition means, from either [ at least ] said ID or personal attribute information, as for this attribute circumstantial analysis means.

[Claim 10] It is ead information distribution equipment according to claim 7 characterized by for said situation acquisition means being the weight sensor installed in the field of said information-display tooth space to which it can be viewed and listened, and this attribute circumstantial analysis means analyzing a viewer's weight as an attribute situation.

[Claim 11] It is ead information distribution equipment according to claim 7 characterized by for said situation acquisition means being a climate sensor which measures either [ at least ] the temperature installed near said information-display tooth space, or humidity, and this attribute circumstantial analysis means analyzing the measured value of a climate sensor as an attribute situation.

[Claim 12] Sense the attribute situation of the viewer who views and listens to an

information-display tooth space, and a viewer's this sensed attribute situation is analyzed. Supply of the contents displayed on an information-display tooth space according to this viewer's attribute situation is received from this printing request Lord. The ecad information distribution approach characterized by including making it display on the information-display tooth space which took matching with this viewer's attribute situation analyzed by the conditions and this attribute circumstantial analysis means which the printing request Lord requests, and was able to take matching of these contents.

[Claim 13] The charge calculation equipment of printing of the ecad information distribution equipment characterized by to provide a situation acquisition means sense the attribute situation of the viewer who views and listens to an information-display tooth space, a means analyze a viewer's attribute situation which this situation acquisition means has sensed, and a means calculate the display unit price of the contents displayed on an information-display tooth space according to this viewer's attribute situation.

---

## DETAILED DESCRIPTION

---

[Detailed Description of the Invention]



[0001]

[Field of the Invention] This invention relates to the system which distributes electronic display information or manages distribution to the information-display tooth space which can display electronic information like a static image or an image.

[0002]

[Description of the Prior Art] A television set is installed in the information-display tooth space provided for the street, the station, the electric car, etc., and passing the information from video televising, television broadcasting, alphabetic character data broadcasting, etc. all at once there is performed (refer to JP,7-168544,A).

[0003]

[Problem(s) to be Solved by the Invention] However, with the conventional technique, in order to pass a series of regular information as broadcast, the technical problem that a flexible display change was difficult occurred. Moreover, it is the format that the same content is fundamentally broadcast by two or more information-display tooth spaces, and carrying out individual management of the contents displayed on each information-display tooth space had the technical problem were difficult.

[0004] This invention solves the technical problem mentioned above, and it aims

at offering suitable display information distribution equipment carrying out individual management of the contents displayed on each information-display tooth space.

[0005]

[Means for Solving the Problem] The display information distribution equipment 30 of this invention which solves the above-mentioned technical problem A tooth-space attribute information database means 32 to register the attribute information on each information-display tooth space 20 as shown in drawing 1 , The inside of this tooth-space attribute information database means 32 is searched according to retrieval conditions. An information-display tooth-space extract means 34 to extract the information-display tooth space 20 corresponding to these retrieval conditions, A contents database means 36 to receive supply of the contents displayed on the this extracted information-display tooth space from this printing request Lord, and the schedule management tool 38 which makes each information-display tooth space 20 from which it was this extracted at the predetermined stage display these contents according to an individual are provided.

[0006] Here, there are a header title, an installation, positional information, a group configuration of LAN connection, a company name, a display format, etc. in the attribute information on an information-display tooth space. A fixed

location like a railroad station and the specific part of a mobile like a car are located in an installation. The location of time of day and the target information-display tooth space, the magnitude of a screen, the charge of printing, etc. are included in the retrieval conditions which the printing request Lord requests. An advertisement etc. is included in a static image, an animation, speech information, a landscape, a person image, local information, emergency intelligence, road traffic information, and a railroad operation information list at contents. The printing request Lord and the provider of an information-display tooth space set up retrieval conditions.

[0007] Thus, in the constituted equipment, the printing request Lord searches the inside of a tooth-space attribute information database means, and extracts the information-display tooth space corresponding to retrieval conditions. Moreover, the printing request Lord registers into a contents database means the contents displayed on an information-display tooth space. A schedule management tool is distributed to the information-display tooth space specified as the stage which had the target contents specified by the conditions which the printing request Lord specified. Thus, to the information-display tooth space between a large number which are geographically scattered, many printing request Lords can display contents by time sharing by low cost, and advertising distribution can be performed efficiently.

[0008] It is good to establish the contravention contents clearance means 40 of a public policy except the contents which correspond to contravention of a public policy preferably among the contents displayed on an information-display tooth space. The grace as media put up for the location which the public peruses by eliminating the expression which carries out slander of the third party, and an obscene expression with the contravention contents clearance means of a public policy is held. Moreover, if contents establish preferably a display track record database means 42 to receive the time of day displayed on the information-display tooth space, and an accounting means 44 to charge the printing request Lord based on the display track record of contents, the printing request Lord can pay the charge of printing based on the contents actually distributed to the information-display tooth space.

[0009] Priority is preferably given over the display schedule of the contents of the information-display tooth space which the schedule management tool 38 appoints, and if it is the configuration which has a contents distribution means 46 for interruption to distribute the contents for interruption, communication of emergencies, such as disaster and a riot, and a car thing, therefore the situation of an operation halt to depend can transmit to a viewer promptly. Moreover, if it is the configuration which has a time amount nonappointed contents distribution means 48 to distribute time amount nonappointed contents in this empty time

zone when there is an empty time zone to the display schedule of the contents of the information-display tooth space which the schedule management tool 38 appoints, printing to which a time zone without a printing request also lengthens a viewer's interest interest can be performed, and habit attachment to which a viewer views and listens to an information-display tooth space can be performed.

[0010] The ead information distribution equipment 50 of this invention which solves the above-mentioned technical problem A situation acquisition means 60 to sense the attribute situation of the viewer who views and listens to an information-display tooth space as shown in drawing 2 , An attribute circumstantial analysis means 52 to analyze a viewer's attribute situation which this situation acquisition means has sensed, A contents database means 54 to receive supply of the contents displayed on an information-display tooth space according to this viewer's attribute situation from this printing request Lord, The contents selection transmitting means 56 displayed on the information-display tooth space which took matching with this viewer's attribute situation analyzed by the advertising conditions and this attribute circumstantial analysis means which the printing request Lord requests, and was able to take matching of these contents is provided.

[0011] Thus, in the constituted equipment, a situation acquisition means senses a viewer's attribute situation, and ID sending sets, such as image pick-up

equipment, a portable telephone, and an IC card, a weight sensor, a climate sensor, an infrared sensor, etc. correspond. An attribute circumstantial analysis means analyzes a viewer's attribute situation which the situation acquisition means has sensed, and image-analysis equipment, ID information receiving set, a body-sensory-information inverter, etc. correspond. The contents doubled with the various customer targets the young object for women, the object for middle-aged women, the object for sportsmen, the object for businessmen, for candidates, etc. are registered into the contents database means. A contents selection transmitting means chooses and distributes the contents which suit the customer target which is viewing and listening to an information-display tooth space.

[0012] Preferably, a situation acquisition means is image pick-up equipment, and an attribute circumstantial analysis means can distribute contents to an information-display tooth space according to the attribute expected from a viewer's appearance, for example, sex, and an age group. Moreover, a situation acquisition means receives either [ at least ] ID which the ID sending set which the viewer who views and listens to an information-display tooth space possesses sends, or personal attribute information, and this attribute circumstantial-analysis means can distribute the contents which doubled with an individual taste on the basis of the ID information stored in an ID sending set to

an information-display tooth space, if the personal attribute information drawn from ID and an ID sending set consider as the configuration which analyzes the attribute situation which a viewer likes from the personal attribute information which sends directly. Moreover, a situation acquisition means is the weight sensor installed in the field of an information-display tooth space to which it can be viewed and listened, and if an attribute circumstantial analysis means is the configuration which analyzes a viewer's weight as an attribute situation, it can distribute the contents doubled with the diet-oriented man or the man liable to obesity to an information-display tooth space. moreover -- if a situation acquisition means is a climate sensor which measures either [ at least ] the temperature installed near the information-display tooth space, or humidity and an attribute circumstantial analysis means is the configuration which analyzes the measured value of a climate sensor as an attribute situation -- heat, cold, and eye \*\*\*\*\* -- since -- since -- etc. -- the taste which an average customer wants from a climatic factor can be predicted, and contents can be distributed to taste prediction to an information-display tooth space.

[0013] The charge calculation equipment of the ecad information distribution equipment of this invention which solves the above-mentioned technical problem of printing is characterized by to provide a situation acquisition means 60 sense the attribute situation of the viewer who views and listens to an

information-display tooth space, an attribute circumstantial-analysis means 52 analyze a viewer's attribute situation which this situation acquisition means has sensed, and an accounting means 58 calculate the display unit price of the contents which display on an information-display tooth space according to this viewer's attribute situation, as shown in drawing 2 . Thus, in the constituted equipment, since the guide of a display tariff unit price is acquired according to the attribute of those who are viewing and listening to an information-display tooth space, a judgment rational for the printing request Lord can be made easily. In consideration of the printing request Lord's need, the provider of an information-display tooth space defines the tariff which defined the display tariff unit price.

[0014]

[Embodiment of the Invention] Hereafter, the gestalt of operation of this invention is explained using a drawing. Drawing 3 is configuration block drawing explaining the 1st operation gestalt of this invention, also combines the information transfer between each component, and is shown. In drawing, the information-display tooth space 20 is the indicating equipment installed in the interior of the interior and the street of a public transportation facility of a rail car, a bus, taxicar, etc., and a public facility, and a television set, a liquid crystal display panel, a plasma display panel, etc. are contained. Display information



distribution equipment 30 distributes contents to the contents and the contents printing conditions which were sent from the printing request master station 10, and tooth-space attribute information database 32 list to the information-display tooth space 20 in consideration of the schedule database 39 according to the order from the printing request Lord. The information-display tooth-space provider terminal 22 receives the receipt information on the countervalue to onerous contents printing while it is installed by the installation entrepreneur of the information-display tooth space 20, for example, a railroad firm, a bus company, a municipal corporation, and the public corporation and registers the attribute information on the information-display tooth space 20 into the tooth-space attribute information database 32. The printing request master station 10 is installed in the sales promotion department of the enterprise for an advertising agent, an advertising agency, and public goods etc., and performs the printing request of contents to display information distribution equipment 30. A communication line NW performs information transfer between printing request master station 10 in the information-display tooth space 20, display information distribution equipment 30, and information-display tooth-space provider terminal 22 list, and LAN, a dial-up line, a cellular-phone circuit, a satellite communication circuit, a data telecommunication line, etc. are contained.

[0015] Drawing 4 is the explanatory view of a tooth-space attribute information

database. Each column, such as the management number of the information-display tooth space 20, a header title, positional information, LAN group organization, a company name, and a display format, is prepared in the tooth-space attribute information database. An operation right-of-way name and a railroad firm name are registered into the header title column at a display desirable as a header of the information-display tooth space 20, for example, a railroad. In the case of a mobile like a car, each column of the size of an operation right-of-way name and a map, the plot plan within a car, an installation, and a screen is prepared, and when it is a fixed location like a station building, each column of the size of a map, an installation, and a screen is prepared in the positional information column. LAN group organization carries out grouping of the information-display tooth space 20 within [ LAN ] a car. For example, although the information-display tooth space 20 becomes 32 per car of a rail car by the four-door car since there is a door of eight right and left when four per one door are prepared, if this is connected by LAN of four sequences, the information-display tooth space 20 between eight per each system will exist per car.

[0016] Drawing 5 is the explanatory view of a schedule database and a contents database, in (A), a schedule database and (B) show a contents database, and (C) has shown the contents pattern PT. The schedule of which contents to

distribute daytime and nightly the date and a time zone, for example, a morning, is indicated by the schedule database. When distributing two or more contents in a certain time zone, it is good to also include assignment of whether to distribute to the method of time-sharing distribution, and which part of the information-display tooth space 20 which has more than one. Each column of the upper limit frame of the management number of contents, the contents pattern PT, a display initiation date and a display termination date, and an accumulation printing tariff is prepared in the contents database. There are usually exceptions, such as a charter, empty time amount, an object for their company, and an interrupt field, in the contents pattern PT. What whose contents patterns PT 2 for empty time amount are onerous contents, and does not have directions of printing time of day is contained. The printing entrepreneur of an information-display tooth space carries the contents pattern PT 3 for his company, and resort trade advertising, event information, etc. which are the associated business of a railroad firm correspond.

[0017] Thus, actuation of the constituted equipment is explained below. First, information-display tooth-space attribute information is transmitted from the information-display tooth-space provider terminal 22 to display information distribution equipment 30 (S100). Display information distribution equipment 30 will answer a letter in advice of the completion of registration, if the

information-display tooth-space attribute information transmitted to the tariff database 45 is registered into tooth-space attribute information database 32 list (S102).

[0018] Drawing 6 is drawing explaining registration of information-display tooth-space attribute information. The installation of the information-display tooth space 20, registration of a tariff gestalt, the display propriety in emergency, a screen size, number of sheets, the unit of a printing application and a printing price, event information, etc. are included in information-display tooth-space attribute information. Selection of a charging system is included in registration of a tariff gestalt, for example, a timer change mold, the mold corresponding to the rate of car entrainment, and a taste classification mold are contained in it. In a timer change mold, they are the format which displays a display at fixed spacing as a unit for 15 seconds once, for example, and the displayed method which carries out fixed time-of-day continuation. If the response over human being's advertisement has the largest first time and the same thing is seen repeatedly, the property in which reactivity falls may be taken into consideration. Moreover, when repeating a display, for example at 1 time of a rate at the station spacing of a big city commuter railway line, for example, 3 minutes, a display tariff can also be calculated using the die length of the time amount displayed at once as the period of a repeat on the basis of a display unit price.

[0019] It is what defines a display unit price in the mold corresponding to the rate of car entrainment according to the number of the viewers who have taken the car. For example, by the radiation mold commuter railway line of a big city, from a terminal station, since the less than 10km section in the center of Tokyo has the high rate of entrainment, a display unit price is set to a large sum. Since the rate of entrainment is whenever [ middle ], the 10km - 30km middle distance section sets a display unit price to a medium frame, and since the suburban section 30km or more has the low rate of entrainment, a display unit price is set to a small amount. In a taste classification mold, the suitable contents corresponding to a viewer's taste are distributed, and a viewer's taste is collected from ID or personal attribute information that ID sending set sends. When an event with the draw is held by specific time, according to the draw of this event, a printing tariff can be set as a large sum rather than the usual stage, and a printing tariff can also be set as a small amount rather than the usual stage at an off-peak period.

[0020] Next, a conditional retrieval request is transmitted from the printing request master station 10 to display information distribution equipment 30 (S104). Display information distribution equipment 30 searches the tooth-space attribute information database 32, the schedule database 39, and the tariff database 45 using the retrieval function 33 of the information-display

tooth-space extract means 34. And the printing request master station 10 is answered from display information distribution equipment 30 in the retrieval result of a conditional retrieval request (S108). In addition, marketing activities, such as rates, are performed because an information-display tooth-space provider also gets to know the working state of other information-display tooth spaces 20. Then, transmission of a conditional retrieval request is accepted also in the information-display tooth-space provider terminal 22 to display information distribution equipment 30 (S106), and the information-display tooth-space provider terminal 22 is answered from display information distribution equipment 30 in the retrieval result of a conditional retrieval request (S110).

[0021] Next, the printing request master station 10 transmits the contents of a printing schedule while performing temporary reservation of printing of the information-display tooth space 20 in the time which the printing request Lord wants to display to display information distribution equipment 30 (S112). Display information distribution equipment 30 registers the contents of a printing schedule into the contents database 36 while making the transmitted temporary reservation reflect in the schedule database 39 by the temporary reservation function 382. Then, display information distribution equipment 30 transmits the contents of a printing schedule to the contravention contents clearance means 40 of a public policy by the content check request function 384 (S114). An

information-display tooth-space provider examines the contents of a printing schedule, the contravention contents clearance means 40 of a public policy eliminates the content which is not desirable as public advertisements, such as a slander slander expression and instigation of disturbance, and a content check result is answered by display information distribution equipment 30 (S116). When the contents of a printing schedule of an information-display tooth-space provider judge that it is fitness, while display information distribution equipment 30 updates temporary reservation of the schedule database 39 to this reservation by the reservation function 388, the printing request master station 10 is answered in advice of fitness (S118). When an information-display tooth-space provider judges that there is a point which should be corrected to the contents of a printing schedule, the content of correction directions is transmitted to the printing request master station 10, and if the printing request Lord agrees, it will shift to the following procedure required for printing.

[0022] Drawing 7 is reservation symbol description drawing at the retrieval function of drawing 3 , a temporary reservation function, and a content check request functional list. Retrieval conditions are first inputted into the printing request master station 10 by \*\*, and it registers with the tooth-space attribute information database 32. ID which identifies the printing request Lord, a printing location, the installation of the information-display tooth space 20, registration of

a tariff gestalt, assignment of a screen size and number of sheets, the limits of a printing price, event information, etc. are included in retrieval conditions. Next, by \*\*, display information distribution equipment 30 registers the contents of a printing schedule into the contents database 36 while registering temporary reservation into the schedule database 39, if it checks that the information-display tooth space 20 in alignment with the inputted retrieval conditions exists. \*\* Even if it transmits to the information-display tooth-space provider terminal 22 and carries the contents of a printing schedule, I have an information-display tooth-space provider check that they are convenient contents. Then, by \*\*, temporary reservation is changed into this reservation to the contents of the printing schedule which acquired the approval of an information-display tooth-space provider.

[0023] If the date of this reservation comes, the schedule management tool 38 will carry out data transmission to the buffer of the information-display tooth space 20 that the contents of a printing schedule should be displayed on the information-display tooth space 20 by which actual reservation was carried out with reference to the schedule database 39 and the contents database 36 (S120). The buffer of the information-display tooth space 20 performs individual distribution for displaying the contents of a printing schedule on the display 21 of each installation. The log of this individual distribution is registered into the



display track record database 42 (S122). The accounting means 44 transmits the amount of contents printing to the printing request master station 10 while it calculates the charge of contents printing to an information-display tooth space and transmits a contents printing revenue to the information-display tooth-space provider terminal 22 in consideration of the display track record database 42 and the tariff database 45 (S124) (S126).

[0024] Drawing 8 is the explanatory view of the schedule function manager of drawing 3 . The schedule management tool 38 transmits the contents of a printing schedule to the schedule database 39, the tooth-space attribute information database 32, and a list through a communication line NW with reference to the contents database 36 to the information-display tooth space 20 by which actual reservation was carried out. The information-display tooth space 20 is carried for viewers to the time amount which had the contents of the printing schedule transmitted via the communication line NW reserved.

[0025] Drawing 9 is the explanatory view of the accounting function of drawing 3 . The display initiation log and display termination log at the time of the display output of the contents distributed by the schedule management tool 38 are stored in the display track record database 42. The accounting means 44 calculates the charge of printing in consideration of the display track record database 42 and the tariff database 45. In this case, since interruption display

time existed, when the reserved contents are not displayed, abatement processing of the tariff according to the number of the time amount which was not displayed and the information-display tooth spaces 20 is performed. This charge of printing is transmitted to the information-display tooth-space provider terminal 22 and the printing request master station 10 through a communication line NW.

[0026] Drawing 10 is configuration block drawing explaining the 2nd operation gestalt of this invention. When the high event of accident, the news flash nature of an incident, or urgency occurs, an interruption display is decision of an information-display tooth-space provider, and priority is given to it over the existing schedule pipe \*\*, and it distributes the news of accident or an incident to the information-display tooth space 20. Generating of the high event of urgency transmits the contents [ finishing / a content check ] for an interruption display to the contents distribution means 46 for interruption from the information-display tooth-space provider terminal 22 (S200). After the contents distribution means 46 for interruption once registered the transmitted contents for an interruption display into the schedule database 39 and the contents database 36 and various flags have been recognized, it transmits to the buffer of the information-display tooth space 20 for the contents for an interruption display (S202), and a buffer changes a display from old contents to the contents for an interruption display to

proper timing to a display 21. And it returns to the contents display of the schedule database 39 reserved at the beginning after the time amount progress by which common knowledge thoroughness of high event generating of urgency was achieved.

[0027] Since the time amount as which the contents for an interruption display were displayed was not able to distribute the onerous printing contents planned in the schedule database 39, the contents distribution situation for interruption is transmitted to an accounting function 44 from the information-display tooth space 20 (S204). An accounting function 44 reports the abatement processing corresponding to the contents distribution for interruption to the information-display tooth-space provider terminal 22 (S206).

[0028] Drawing 11 is drawing explaining the detail of actuation of the contents distribution means for interruption. The display contents which attached the classification division tag are stored in the contents database 36. a classification division tag -- an interruption display -- it turns OL (Office Lady) and is the partition of for businessmen, for children, for elderly people, for housewives, 80% or more of rates of entrainment, 28 outside air temperature or more, etc. If there are directions of interruption display change processing from the contents distribution means 46 for interruption, contents #0000 will be chosen for the classification division tag of the contents database 36 from "interruption

displays", for example. The contents distribution means 46 for interruption distributes contents #0000 called to the information-display tooth space 20.

[0029] Drawing 12 is configuration block drawing explaining the 3rd operation gestalt of this invention. A time zone without the application of onerous printing contents exists in the schedule database 39. When there is no application of such onerous printing contents, image information distributed to the information-display tooth space 20 is performed by the time amount nonappointed contents distribution means 48. There is a silent film which is onerous printing contents and obtained consent of the utilization acceleration advertisement, what has undecided printing time amount, and gratis printing contents, for example, a landscape, of a railroad firm, the offer image of a municipal corporation, and a copyright person in the image information which the time amount nonappointed contents distribution means 48 distributes. That is, in the schedule database 39, before a fixed period of the display date, the application of display reservation is closed and the display reservation schedule of contents is adjusted. When empty time amount arises in the schedule database 39 as a result of adjustment, the time amount nonappointed contents prepared in the contents database 36 are distributed with the time amount nonappointed contents distribution means 48.

[0030] Drawing 13 is drawing explaining the detail of actuation of a time amount

nonappointed contents distribution means. It discovers that an empty time zone is in the display reservation schedule on July 1 first on June 24 of the reservation adjustment deadline (S300). Then, the time amount nonappointed contents distribution means 48 searches the contents PT 2 for empty time amount from the contents database 36 (S302). If it judges whether there are any contents corresponding to time conditions to the contents PT 2 for empty time amount (S304) and is in them, it will check that it is less than the upper limit frame of the accumulation tariff specified by the advertiser of the contents PT 2 for empty time amount (S306), and will supply to the schedule database 39 (S308). Then, if it searches whether there is any empty time zone about other time zone and other information-display tooth spaces 20 (S310) and there is an empty time zone, the time amount nonappointed contents distribution means 48 will search the contents PT 2 for empty time amount from the contents database 36 (S312). If other contents PT 2 for empty time amount exist, it will return to S302, and if the contents PT 2 for empty time amount are already NETA pieces, the contents PT 3 for their company will be searched (S314).

[0031] And it judges whether the contents corresponding to time conditions are in the contents PT 3 for their company (S316), and if there is nothing, the information-display tooth space 20 will be considered as a blank paper display (S318). If it exists, the corresponding contents PT 3 for their company will be

supplied to the schedule database 39 (S320). Then, processing will be completed if it searches whether there is any empty time zone about other time zone and other information-display tooth spaces 20 (S322), and there is an empty time zone, and return and an empty time zone are lost to S314 (S324).

[0032] Drawing 14 is configuration block drawing explaining the 4th operation gestalt of this invention. In drawing, ecad information distribution equipment 50 distributes contents to the contents and the contents printing conditions which were sent from the printing request master station 10, and tooth-space attribute information database 32 list to the information-display tooth space 20 according to the order from the printing request Lord in consideration of the viewer information on the information-display tooth-space 20 neighborhood which situation acquisition equipment 60 collects. Situation acquisition equipment 60 senses a viewer's attribute situation, and ID sending sets, such as image pick-up equipment, a portable telephone, and an IC card, a weight sensor, a climate sensor, an infrared sensor, etc. correspond.

[0033] Drawing 15 is the explanatory view of a tooth-space attribute information database. Each column of the management number of the information-display tooth space 20, a header title, positional information, LAN group organization, a company name, a display format, and the discernment approach is prepared in the tooth-space attribute information database. About a header title, positional

information, LAN group organization, and a company name, it is the same as that of the place explained by drawing 4. The schedule assignment with which the display schedule was beforehand determined as the method changed on real time according to viewer discernment of situation acquisition equipment 60 is shown in a display format. By law a-e of equipment, the content of observation, and a condition class is prepared in the discernment approach. For example, in carrying out temperature measurement using an infrared sensor and identifying a person, there is a partition of a viewer performing discernment of an adult or a child for whether manpower is only identified according to a pixel consistency. moreover -- the case where use image pick-up equipment for a scale list, measure height, and a viewer's body fat percentage is measured indirectly -- growing fat -- passing -- usually -- becoming thin -- passing -- etc. -- a viewer is classified. Moreover, in carrying out image analysis using a camera, it makes the partition based on the appearance of viewers, such as a woman, a male, a housewife, a child, and elderly people. If temperature-and-humidity measurement is carried out using a thermo-hygrometer, a cold partition [ it is sultry, thick, is usually cool and ] will be made.

[0034] Drawing 16 is the explanatory view of a condition by law of a tooth-space attribute information database. for example, body fat percentage measurement -- obesity, obesity feeling, and normal -- becoming thin -- etc. -- as

for the criteria which classify a viewer, in the case of the male, it indicates 30% or more, 25% or more, and 20% or more, and that it is 15% or less, respectively.

[0035] Drawing 17 is the explanatory view of a contents database. A viewer's conditions and the upper limit of an accumulation tariff are registered into the contents database by the display initiation period for every contents, and the display termination period list. For example, when the advertisement for midsummer of Biel is sultry, the sink and the upper limit are registered into the information-display tooth space 20 with 10 million yen. Moreover, when the advertisement of a female journal or a beauty parlor requires a female viewer near the information-display tooth space 20, the advertisement of a sink, health food, and a fitness club is poured when there is a viewer of obesity near the information-display tooth space 20.

[0036] Thus, actuation of the constituted equipment is explained based on drawing 14. First, information-display tooth-space attribute information is transmitted from the information-display tooth-space provider terminal 22 to ecad information distribution equipment 50 (S400). Ecad information distribution equipment 50 will answer a letter in advice of the completion of registration, if the information-display tooth-space attribute information transmitted to the tariff database 45 is registered into tooth-space attribute information database 32 list (S402).



[0037] Next, the printing request master station 10 transmits the contents of a printing schedule while the printing request Lord performs temporary reservation of printing of the information-display tooth space 20 to ecad information distribution equipment 50 (S404). Ecad information distribution equipment 50 registers the contents of a printing schedule into the contents database 54 while making temporary reservation of the transmitted schedule assignment mold contents reflect in the schedule database 39 by the temporary reservation function 382. Then, ecad information distribution equipment 50 transmits the contents of a printing schedule to the contravention contents clearance means 40 of a public policy by the content check request function 384 (S406). An information-display tooth-space provider examines the contents of a printing schedule, the contravention contents clearance means 40 of a public policy eliminates the content which is not desirable as public advertisements, such as a slander slander expression and instigation of disturbance, and a content check result is answered by ecad information distribution equipment 50 (S408). When the contents of a printing schedule of an information-display tooth-space provider judge that it is fitness, while ecad information distribution equipment 50 updates temporary reservation of the schedule database 39 of schedule assignment mold contents to this reservation by the reservation function 388, the printing request master station 10 is answered in advice of fitness (S410). When

an information-display tooth-space provider judges that there is a point which should be corrected to the contents of a printing schedule, the content of correction directions is transmitted to the printing request master station 10, and if the printing request Lord agrees, it will shift to the following procedure required for printing.

[0038] Next, situation acquisition equipment 60 collects the viewer information on the information-display tooth-space 20 neighborhood, and transmits it to ecad information distribution equipment 50 (S412). Ecad information distribution equipment 50 chooses the contents which analyze the personal attribute database 522, the image analysis information database 524, and the statistical information database 526, and distribute viewer information to the information-display tooth space 20. For example, situation acquisition equipment 60 is image pick-up equipment, and ecad information distribution equipment 50 can distribute contents to the information-display tooth space 20 according to the attribute expected from a viewer's appearance, for example, sex, and an age group. Moreover, situation acquisition equipment 60 receives ID or the personal attribute information that the ID sending set which the viewer who views and listens to the information-display tooth space 20 possesses sends, and if it considers ecad information distribution equipment 50 as the configuration which analyzes the attribute situation which a viewer likes from personal attribute

information with reference to the statistical-information database 526, it can distribute the contents which doubled with an individual taste on the basis of the ID information stored in ID sending set to an information-display tooth space 20. Moreover, situation acquisition equipment 60 is the weight sensor installed in the field of the information-display tooth space 20 to which it can be viewed and listened, and if ecad information distribution equipment 50 is the configuration which analyzes a viewer's weight as an attribute situation, it can distribute the contents doubled with the diet-oriented man or the man liable to obesity to an information-display tooth space. moreover -- if situation acquisition equipment 60 is a climate sensor which measures either [ at least ] the temperature installed near the information-display tooth space 20, or humidity and ecad information distribution equipment 50 is the configuration which analyzes the measured value of a climate sensor as an attribute situation -- heat, cold, and eye \*\*\*\*\* -- since -- since -- etc. -- the taste which an average customer wants from a climatic factor can predict, and contents can distribute to an information-display tooth space 20 to taste prediction.

[0039] Data transmission is carried out to the buffer of the information-display tooth space 20 that the contents which ecad information distribution equipment 50 selected should be displayed on the information-display tooth space 20 in which the target viewer is present (S414). The buffer of the information-display

tooth space 20 performs individual distribution for displaying contents on the display 21 in which the target viewer is. The log of this individual distribution is registered into the display track record database 42 (S416). The accounting means 58 transmits the charge of contents printing to the printing request master station 10 while it calculates the charge of contents printing to an information-display tooth space and transmits a contents printing revenue to the information-display tooth-space provider terminal 22 in consideration of the display track record database 42 and the tariff database 45 (S418) (S420).

[0040] Drawing 18 is the display change explanatory view of real-time change mold contents. The situation acquisition equipment 60 formed near the information-display tooth space 20 sends the image information about a viewer to the image analysis processing section of ecad information distribution equipment 50. Moreover, situation acquisition equipment 60 receives the personal attribute information which an ID sending set like the portable telephone which the viewer who views and listens to the information-display tooth space 20 possesses disseminates, and starts analysis processing of personal attribute data in consideration of the personal attribute database 522. And the viewer who is near the information-display tooth space 20 is classified into the classification division tag in which it was prepared by the contents database 54. A classification division tag is the partition of for businessmen, for

children, for elderly people, for housewives, 80% or more of rates of entrainment, 28 outside air temperature or more, etc. Ecad information distribution equipment 50 distributes the applicable contents of a classification division tag to the information-display tooth space 20.

[0041] Drawing 19 is configuration block drawing explaining the 5th operation gestalt of this invention. In drawing, ecad information distribution equipment 50 collects the viewer information on the information-display tooth-space 20 neighborhood which situation acquisition equipment 60 collects, and stores viewer information in the personal attribute database 522, the image analysis information database 524, and the statistical information database 526 (S500). The tariff creation function 582 creates a tariff on the basis of the viewer information stored in the personal attribute database 522, the image analysis information database 524, and the statistical information database 526. for example, by the car of a commuting time band, since there are many viewers, it is comparatively set as a large sum, and day ranges have few absolute numbers of a viewer -- although set up comparatively cheap, since there are many housewives and elderly people, from the contents for housewives and for elderly people, a surcharge is set up a little. The renewal function 584 of a tariff carries out the renewal check of a tariff to the information-display tooth-space provider terminal 22 while updating the content of the tariff database 45 (S502).

[0042] Drawing 20 is the explanatory view of accounting. Ecad information distribution equipment 50 collects the viewer information on the information-display tooth-space 20 neighborhood which situation acquisition equipment 60 collects, performs image analysis and statistics processing, and stores viewer information in the personal attribute database 522, the image analysis information database 524, and the statistical information database 526. And from real-time change mold contents, the contents which suit the viewer of the information-display tooth-space 20 neighborhood are called from the contents database 54, and it distributes to the information-display tooth space 20. Moreover, from schedule assignment mold contents, if the appointed time of day comes with reference to the schedule database 39, contents will be called from the contents database 54 and it will distribute to the information-display tooth space 20. In accounting, the amount of accounting is computed by detecting the display initiation log and display termination log of contents which are distributed to the information-display tooth space 20, and it distributes to the information-display tooth-space provider terminal 22 and the printing request master station 10. Ecad information distribution equipment 50 also performs creation processing of a tariff using the viewer information on the information-display tooth-space 20 neighborhood.

[0043] In addition, although the case where various databases were formed was

shown in display information distribution equipment or ecad information distribution equipment in the above-mentioned example, this invention is not limited to this and various databases may receive supply from the database pin center, large which is an independent organization.

[0044]

[Effect of the Invention] As explained above, while extracting the information-display tooth space which the printing request Lord searches the inside of a tooth-space attribute information database means, and agrees on retrieval conditions according to the display information distribution equipment of this invention The contents displayed on an information-display tooth space are registered into a contents database means. A schedule management tool Since it considered as the configuration distributed to the information-display tooth space specified as the stage which had the target contents specified by the conditions which the printing request Lord specified To the information-display tooth space between a large number which are geographically scattered, many printing request Lords can display contents by time sharing by low cost, and advertising distribution can be performed efficiently.

[0045] Moreover, a situation acquisition means to sense the attribute situation of the viewer who views and listens to an information-display tooth space according to the ecad information distribution equipment of this invention, An

attribute circumstantial analysis means to analyze a viewer's attribute situation which this situation acquisition means has sensed, A contents database means to receive supply of the contents displayed on an information-display tooth space according to this viewer's attribute situation from this printing request Lord, Matching with this viewer's attribute situation analyzed by the advertising conditions and this attribute circumstantial analysis means which the printing request Lord requests is taken. Since it considered as the configuration which establishes a contents selection transmitting means to display these contents on the information-display tooth space which was able to take matching, the contents which suit the viewer who views and listens to an information-display tooth space can be distributed, and advertising effectiveness increases as compared with schedule mold distribution.

---

## DESCRIPTION OF DRAWINGS

---

[Brief Description of the Drawings]

[Drawing 1] It is configuration block drawing explaining the display information distribution equipment of this invention.

[Drawing 2] It is configuration block drawing explaining the ecad information



distribution equipment of this invention.

[Drawing 3] It is configuration block drawing explaining the 1st operation gestalt of this invention.

[Drawing 4] It is the explanatory view of a tooth-space attribute information database.

[Drawing 5] It is the explanatory view of a contents database.

[Drawing 6] It is drawing explaining registration of information-display tooth-space attribute information.

[Drawing 7] It is reservation symbol description drawing at the retrieval function of drawing 3 , a temporary reservation function, and a content check request functional list.

[Drawing 8] It is the explanatory view of the schedule function manager of drawing 3 .

[Drawing 9] It is the explanatory view of the accounting function of drawing 3 .

[Drawing 10] It is configuration block drawing explaining the 2nd operation gestalt of this invention.

[Drawing 11] It is drawing explaining the detail of actuation of the contents distribution means for interruption.

[Drawing 12] It is configuration block drawing explaining the 3rd operation gestalt of this invention.

[Drawing 13] It is drawing explaining the detail of actuation of a time amount nonappointed contents distribution means.

[Drawing 14] It is configuration block drawing explaining the 4th operation gestalt of this invention.

[Drawing 15] It is the explanatory view of a tooth-space attribute information database.

[Drawing 16] It is the explanatory view of a condition bye law of a tooth-space attribute information database.

[Drawing 17] It is the explanatory view of a contents database.

[Drawing 18] It is the display change explanatory view of real-time change mold contents.

[Drawing 19] It is configuration block drawing explaining the 5th operation gestalt of this invention.

[Drawing 20] It is the explanatory view of accounting.

[Description of Notations]

20 Information-Display Tooth Space

30 Display Information Distribution Equipment

32 Tooth-Space Attribute Information Database Means

34 Information-Display Tooth-Space Extract Means

36 Contents Database Means

38 Schedule Management Tool

40 Contravention Contents Clearance Means of Public Policy

42 Display Track Record Database Means

44 Accounting Means

46 Contents Distribution Means for Interruption

48 Time Amount Nonappointed Contents Distribution Means

50 Ecad Information Distribution Equipment

52 Attribute Circumstantial Analysis Means

54 Contents Database Means

56 Contents Selection Transmitting Means

60 Situation Acquisition Means